

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



1.96  
R3/SH  
Copy 2

U.S. DEPT. OF AGRICULTURE  
NATIONAL SOIL CONSERVATION SERVICE  
JAN 25 1974

# **WATER SUPPLY OUTLOOK FOR ARIZONA**



**U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE**  
Collaborating with  
**SALT RIVER VALLEY WATER USERS ASSOCIATION**  
and  
**ARIZONA AGRICULTURAL EXPERIMENT STATION**

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF  
**JAN. 15, 1974**

## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

*Cover Photo: Snow Surveyors near Ship Creek,  
Alaska snow course.*

## PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 511 N. W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

## PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia





# ***WATER SUPPLY OUTLOOK FOR ARIZONA***

and  
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

*Issued by*

KENNETH E. GRANT

ADMINISTRATOR  
SOIL CONSERVATION SERVICE  
WASHINGTON, D.C.

|||||  
*Released by*

GEORGE C. MARKS

STATE CONSERVATIONIST  
SOIL CONSERVATION SERVICE  
PHOENIX, ARIZONA

*In Cooperation with*

RICHARD K. FREVERT

DIRECTOR  
ARIZONA AGRICULTURAL  
EXPERIMENT STATION

KARL F. ABEL

PRESIDENT  
SALT RIVER VALLEY WATER  
USERS ASSOCIATION

|||||  
*Report prepared by*

RICHARD W. ENZ, Snow Survey Supervisor

SOIL CONSERVATION SERVICE  
ROOM 6029 FEDERAL BUILDING  
PHOENIX, ARIZONA 85025



# ARIZONA WATER SUPPLY OUTLOOK

JANUARY 15, 1974

The 1974 water supply outlook is generally good, with central Arizona reservoirs containing much above average water supplies. Although snow cover is now above average, spring runoff is expected to be near normal or below because of the extremely dry fall.

## SNOW COVER

As a result of the heavy snowfall during the first week of January, snow cover is above average on all watersheds except the Gila. Snow cover ranges from 79% of average on the Gila to twice average on the Verde, with the Salt and Little Colorado 32% and 15% above average respectively. Heaviest snow accumulation is along the Rim between Show Low and Flagstaff with depths of 2 to 3½ feet. Water contents range from 6 to 12 inches in that area.

## PRECIPITATION

The early January storm produced 4 to 6 inches of precipitation at most high elevation stations raising the accumulated precipitation since November 1 to near normal. Only the Gila Watershed is still significantly below average. The fall and early winter months were very dry with the only storm of consequence occurring in late November.

## SOIL MOISTURE

With much below normal fall precipitation, soils are extremely dry under the snow. Several inches of snow water can be absorbed by this dry soil before significant runoff will occur.

## RESERVOIR STORAGE

All major reservoir systems contain much above average storage and considerably more than last year on this date. The Salt River Project reservoirs, presently containing 74% of capacity, are 48% above average. Storage in San Carlos Reservoir is four times average, at 65% of capacity.

## STREAMFLOW AND WATER SUPPLY

Unless streamflow increases greatly within the next few weeks, January will be the sixth consecutive month with much below average flow. If spring precipitation is normal, a near normal runoff of 377,000 acre-feet is expected through May from the Salt River Project Watershed. Streamflow on the Gila River is anticipated to be significantly below average unless heavy precipitation occurs during the next few months.

Above average water supplies are in prospect for all areas served by reservoir storage. Areas served by direct diversion from streams may expect below normal water supplies.





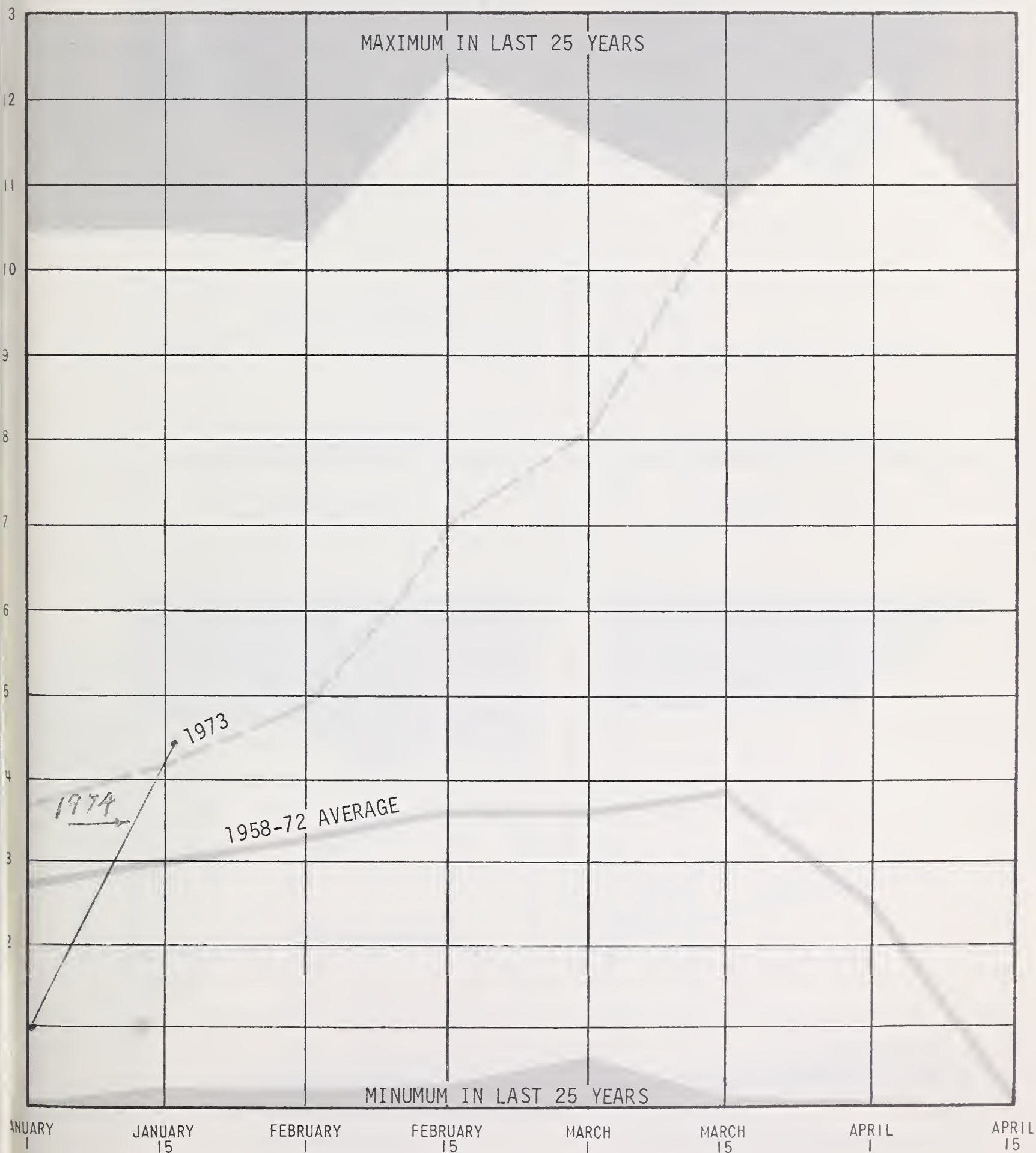
**RESERVOIR STORAGE (Thousand Acre Feet)** MID-MONTH READING ABOUT **JANUARY 15, 1974**

BASIN or STREAM	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average†
GILA RIVER DRAINAGE					
Agua Fria	Lake Pleasant	157.6	106.3	69.8	58.5
Granite	Watson Lake	4.7	1.2	4.4	---
Granite	Willow Creek	6.1	3.2	5.8	---
Gila	San Carlos	948.6	616.5	400.2	157.7
Salt (4)	Roosevelt, Apache, Canyon & Saguaro	1,755	1,412.0	1,177	1,043
Verde (2)	Bartlett and Horseshoe	317.7	115.4	302.2	111.7
Salt and Verde	6 Salt River Project Reservoirs	2,073	1,527.4	1,479	1,155
COLORADO RIVER DRAINAGE					
Colorado	Lake Havasu	619.4	557.9	544.3	540.5
Colorado	Lake Mohave	1,810	1,700.4	1,525	1,636
Colorado	Lake Mead	26,159	19,934.0	18,945	17,386
Colorado	Lake Powell	25,002	17,429.0	12,519	---
Little Colorado	Lyman	30.6	23.6	7.5	12.4
Little Colorado	Show Low Lake	5.1	0.5	2.0	1.4
† Based on 15-year period, 1958-72					

+ 1958-1972 period.



# AVERAGE SNOW COVER ARIZONA 1974

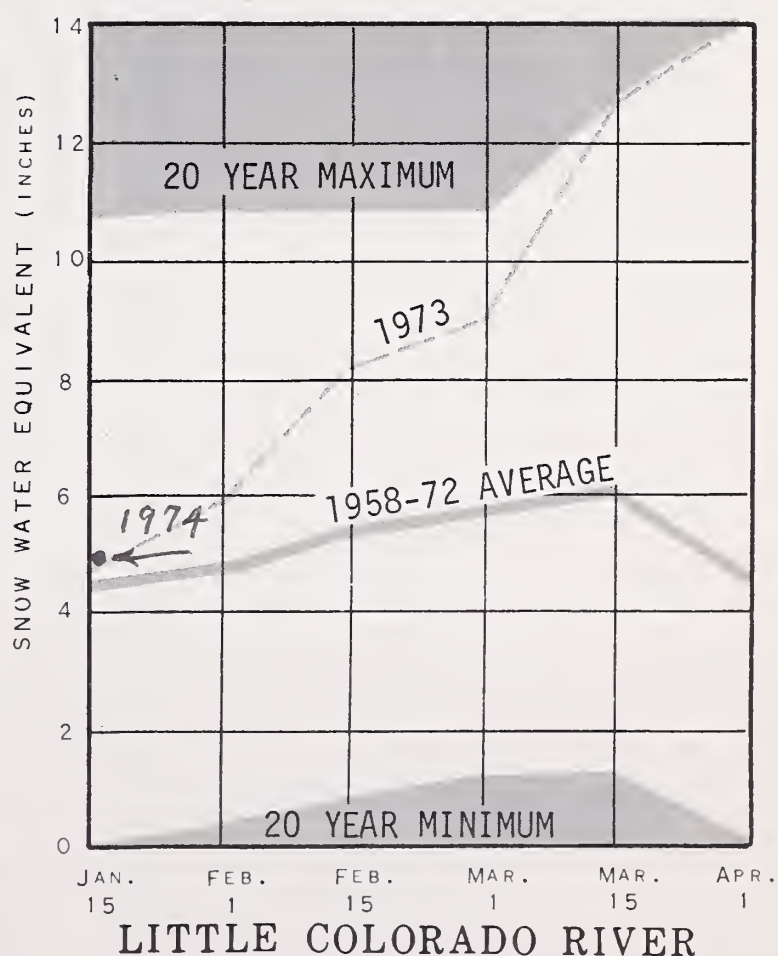
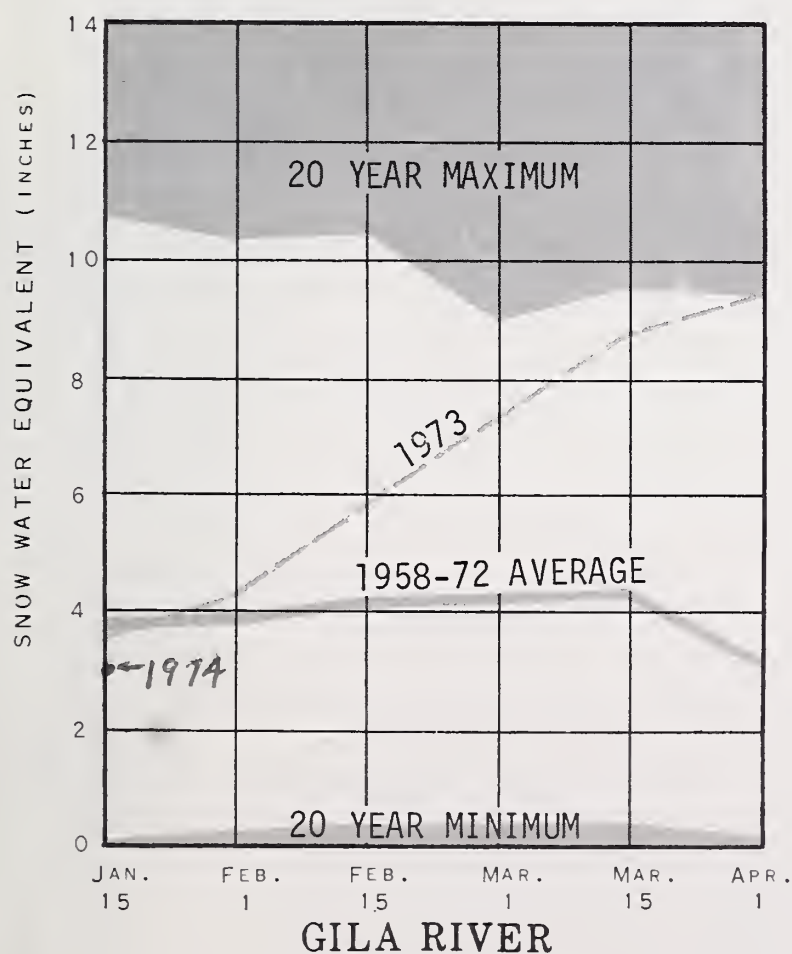
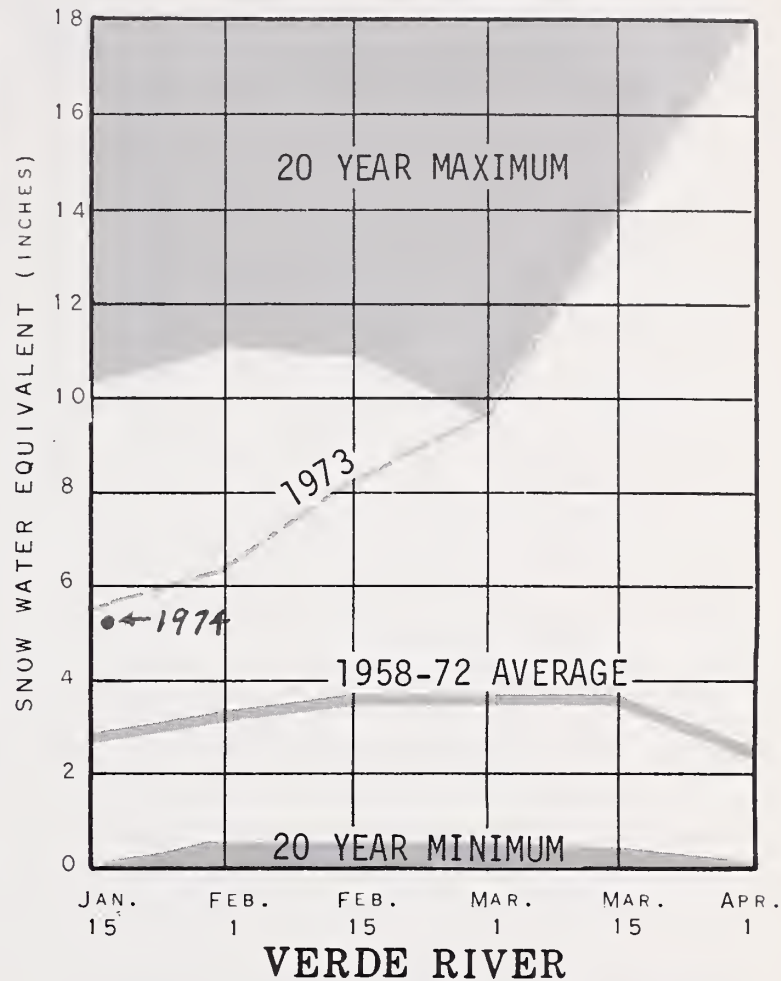
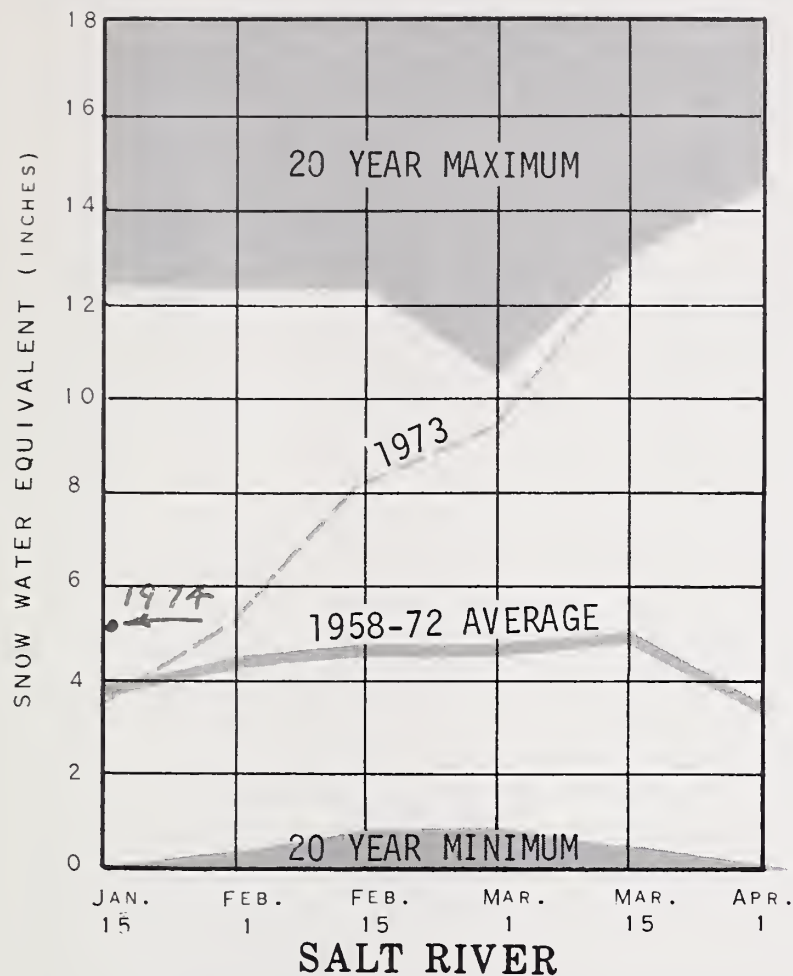


*This graph represents the average snow water content on eleven selected snow courses on Arizona Sub-Watersheds.*





# 1974 WATERSHED SNOW COVER





## SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

ABOUT JANUARY 15, 1974

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF:	
		Last Year	Average
Gila	10	84	79
Salt	10	110	132
Verde	10	94	207
Little Colorado	5	105	115
- 5 -			

+ 1958-1972 period.





## SNOW EARLY WINTER SURVEYS, 1973-74

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average †
Baker Butte #1	7300	12/14	8	2.1	---	NO RECORD FOR THIS PERIOD.
" " "	7300	12/31	4	1.2	5.6	
Baker Butte #2	7700	12/4	14	3.6	---	
" " "	7700	12/31	12	3.5	---	
Baldy	9125	11/28	8	0.9	2.0	
"	9125	1/2	14	2.5	5.4	
Beaver Head	8000	1/3	4	0.5	---	
Canyon Point	7600	12/5	8	1.9	---	
Chalender	7100	12/30	4	1.1	3.1	
Copper Basin Divide	6720	12/3	2	0.7	---	
" " "	6720	12/30	0	0.0	1.8	↓
Coronado Trail	8000	1/3	5	0.6	1.3	
Forest Dale	6430	1/2	6	0.6	---	
Fort Valley	7350	12/30	1	0.4	---	
Hannagan Meadows	9090	1/3	15	2.6	7.0	
Happy Jack	7630	12/31	2	0.7	5.5	
Heber	7600	12/5	7	1.8	---	
"	7600	1/3	11	1.6	5.1	
Inner Basin #1	10100	11/28	22	4.3	7.5	
" " "	10100	12/27	16	4.4	---	
Inner Basin #2	9750	11/28	18	3.2	4.9	
" " "	9750	12/27	10	2.5	---	
Maverick Fork	9050	11/28	13	1.3	1.5	
" "	9050	1/2	17	2.8	6.3	
McNary	7200	1/2	8	1.0	3.2	
Milk Ranch	7000	1/2	7	0.6	---	
Mingus Mountain	7100	12/30	0	0.0	0.5	
Mormon Mountain	7500	12/4	8	2.0	3.0	
" "	7500	12/31	4	1.2	6.1	
Newman Park	6750	12/30	0	0.0	1.8	
Nutriosos	8500	1/3	3	0.4	0.9	
Promontory Butte	7930	12/5	18	4.7	---	
Snow Bowl #1	10260	12/30	12	3.0	---	
Snow Bowl #2	11000	12/30	16	4.6	---	
White Horse Lake Jct.	7150	12/30	2	0.8	3.4	
Wildcat Point	7800	1/3	9	1.8	---	
Wilson Lake	9000	1/3	23	4.6	---	
Workman Creek	6900	12/5	10	2.4	---	



## SNOW

ABOUT JANUARY 15, 1974

SNOW		THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average †
GILA RIVER						
Bear Wallow	8100	1/14	11	4.8	0.3	4.0
Beaver Head	8000	1/15	12	2.9	2.5	3.0
Coronado Trail	8000	1/14	11	1.7	1.7	3.0
Emory Pass #1 *	7800	1/14	6	1.3	1.4	0.9**
Emory Pass #2 *	7800	1/14	7	1.2	2.2	2.0**
Frisco Divide	8000	1/14	9	2.3	2.7	2.6
Hannagan Meadows *	9090	1/15	24	5.3	8.2	6.5
Hummingbird (A)	10550	1/14	26	6.0	11.7	9.1**
McKnight Cabin * (A)	9300	1/14	12	3.0	2.7	3.4**
Mogollon	7000	1/14	2	1.0	0.0	1.7
Nutriososo	8500	1/14	8	1.6	1.8	2.1
Redstone Trail	8600	1/14	18	4.8	4.8	6.1
Rose Canyon	7300	1/14	7	3.4	0.3	2.6
Silver Creek Divide	9000	1/14	23	5.3	8.5	8.8
State Line	8000	1/14	14	3.4	2.9	2.7
Whitewater (A)	10750	1/14	39	10.9	13.5	10.9**
VERDE RIVER						
Baker Butte	7300	1/14	29	8.3	7.4	3.8
Baker Butte #2	7700	1/14	40	11.3	11.5	---
Camp Wood	5700	REPORT DELAYED			0.8	0.7
Chalender *	7100	1/14	17	3.9	4.4	1.8
Copper Basin Divide	6720	1/14	9	2.5	2.2	2.0
Fort Valley	7350	1/14	14	3.3	2.9	1.2
Gaddes Canyon	7600	1/15	23	6.3	5.9	3.0
Happy Jack	7630	1/14	23	6.1	6.9	2.1
Iron Springs *	6200	1/14	6	1.6	0.5	0.9
Mingus Mountain	7100	1/15	8	1.8	1.0	1.0
Mormon Lake *	7350	1/14	22	5.8	7.1	2.4
Mormon Mountain	7500	1/14	26	7.3	8.0	2.9
Newman Park	6750	1/14	18	4.8	4.8	1.6**
Snow Bowl #1	10260	1/14	32	7.6	10.3	5.3**
Snow Bowl #2	11000	1/14	43	8.2	15.3	10.0**
White Horse Lake Jct.	7150	1/14	19	4.0	3.6	2.0**
White Spar	6000	1/14	9	2.5	0.2	1.0**
LOWER COLORADO RIVER						
Bill Williams Int.	8550	1/14	33	7.7	10.5	4.1**
Bill Williams Summit	8950	1/14	36	8.3	11.9	5.2**
Bright Angel	8400	1/15	25	5.3	10.0	---
Chalender *	7100	1/14	17	3.9	4.4	1.8
Fort Valley	7350	1/14	14	3.3	2.9	1.2
Grand Canyon	7500	1/14	14	3.2	5.1	1.5
Williams Ski Run	7720	1/14	29	7.3	9.2	3.5**
† 1958-72 15-year period. (*) Adjacent drainage. (**) 1958-72 Adjusted Average. (A) Aerial observation; water content estimated.						
- 7 -						





## SNOW ABOUT JANUARY 15, 1974

SNOW ABOUT JANUARY 15, 1974		THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average †
<u>SALT RIVER</u>						
Baldy *	9125	1/11	26	5.1	5.7	4.9
Beaver Head	8000	1/15	12	2.9	2.5	3.0
Canyon Creek	7500	1/14	24	6.6	5.0	2.8
Canyon Point	7600	1/14	25	6.8	5.8	3.0**
Coronado Trail	8000	1/14	11	1.7	1.7	3.0
Forest Dale	6430	1/14	11	3.1	2.2	1.4
Ft. Apache	9160	1/11	26	5.2	6.1	5.2
Hannagan Meadows	9090	1/15	24	5.3	8.2	6.5**
Hawley Lake	8300	1/14	30	7.4	5.8	4.3**
Heber	7600	1/14	22	6.2	5.3	2.9
Maverick Fork	9050	1/11	29	6.1	6.6	5.8
McNary	7200	1/14	22	5.8	3.3	2.1
Milk Ranch	7000	1/14	17	4.8	1.3	1.5
Mt. Ord (A)	11000	1/15	57	13.1	---	14.5**
Nutriosos *	8500	1/14	8	1.6	1.8	2.1
Smith Cienega (A)	9850	1/15	33	8.3	---	---
Sunrise Summit	10600	1/14	37	9.3	10.0	---
Wilson Lake	9000	1/14	31	7.1	6.8	7.3**
Workman Creek	6900	1/10	28	8.7	6.3	4.3
Promontory Butte	7930	1/14	39	11.8	---	---
<u>LITTLE COLORADO RIVER</u>						
Baldy	9125	1/11	26	5.1	5.7	4.9
Canyon Creek	7500	1/14	24	6.6	5.0	2.8
Canyon Point	7600	1/14	25	6.8	5.8	3.0**
Cheese Springs	8600	1/14	20	4.1	5.1	4.8**
Forest Dale	6430	1/14	11	3.1	2.2	1.4
Ft. Apache	9160	1/11	26	5.2	6.1	5.2
Fort Valley	7350	1/14	14	3.3	2.9	1.2
Happy Jack *	7630	1/14	23	6.1	6.9	2.1
Heber	7600	1/14	22	6.2	5.3	2.9
Inner Basin #1	10100	MEASUREMENTS OF 12/27			18.9	---
Inner Basin #2	9750	WITH EARLY SURVEYS			11.6	---
McNary	7200	1/14	22	5.8	3.3	2.1
Mormon Lake	7350	1/14	22	5.8	7.1	2.4
Mormon Mountain	7500	1/14	26	7.3	8.0	2.9
Nutriosos	8500	1/14	8	1.6	1.8	2.1
Snow Bowl #1	10260	1/14	32	7.6	10.3	5.3**
Snow Bowl #2	11000	1/14	43	8.2	15.3	10.0**
Wilson Lake	9000	1/14	31	7.1	6.8	7.3**
† 1958-72 15-year period. (*) Adjacent drainage. (**) 1958-72 Adjusted Average. (A) Aerial observation; water content estimated.						
- 8 -						

† 1958-72 15-year period. (\*) Adjacent drainage. (\*\*) 1958-72 Adjusted Average. (A) Aerial observation; water content estimated.



+

WSFB-X13B

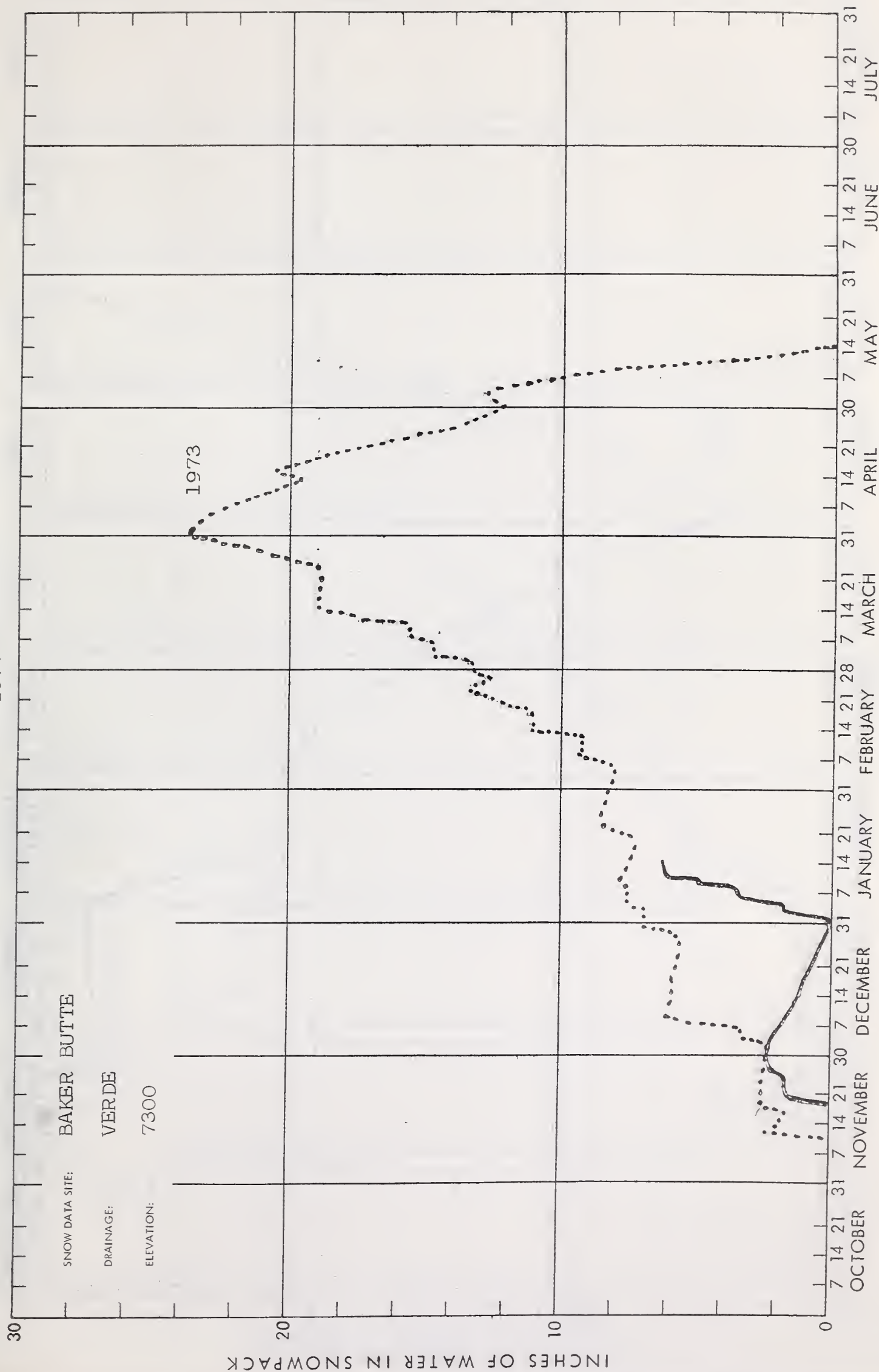
# SNOW PILLOW DATA

1974

SNOW DATA SITE: BAKER BUTTE

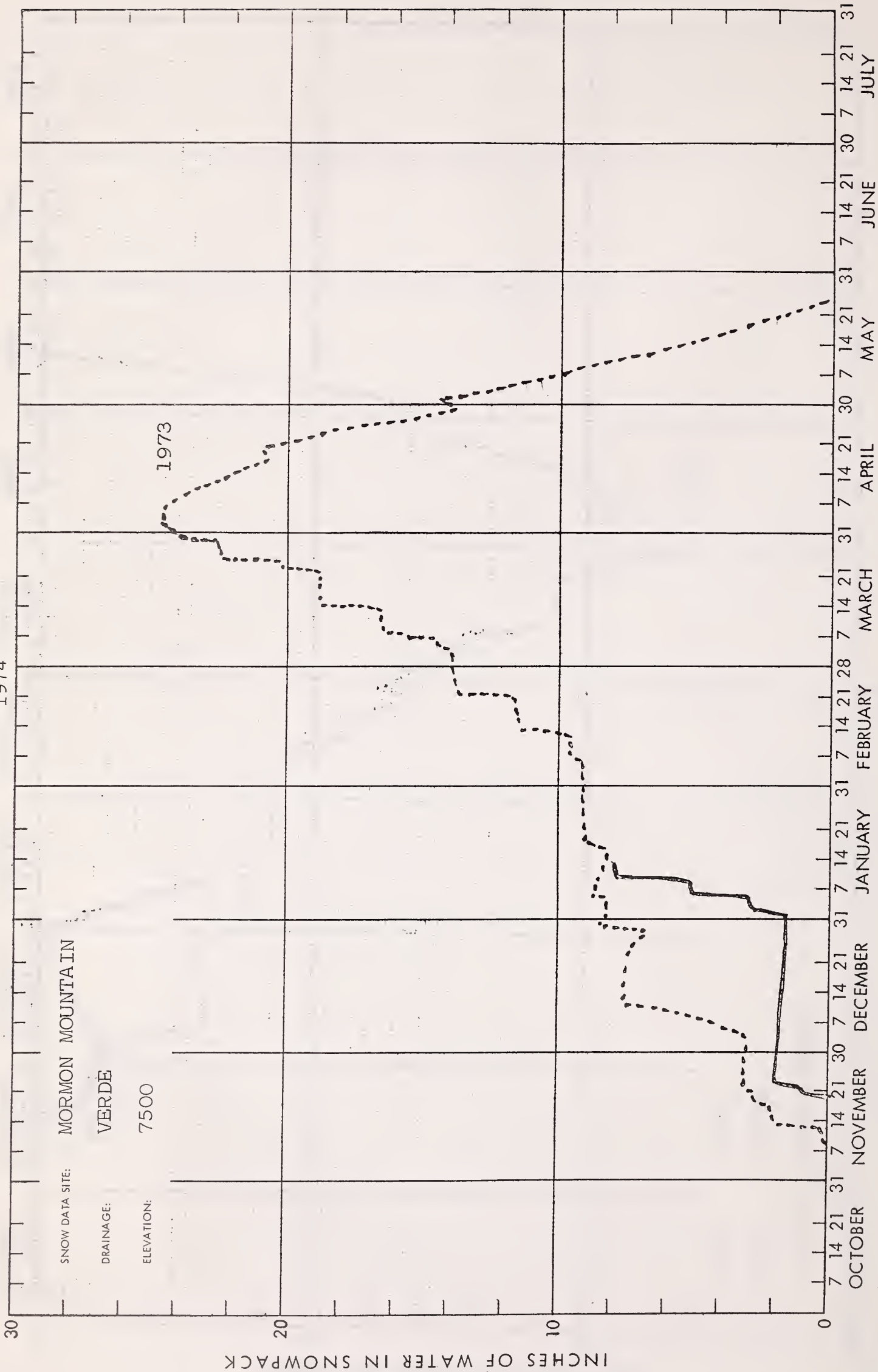
DRAINAGE: VERDE

ELEVATION: 7300



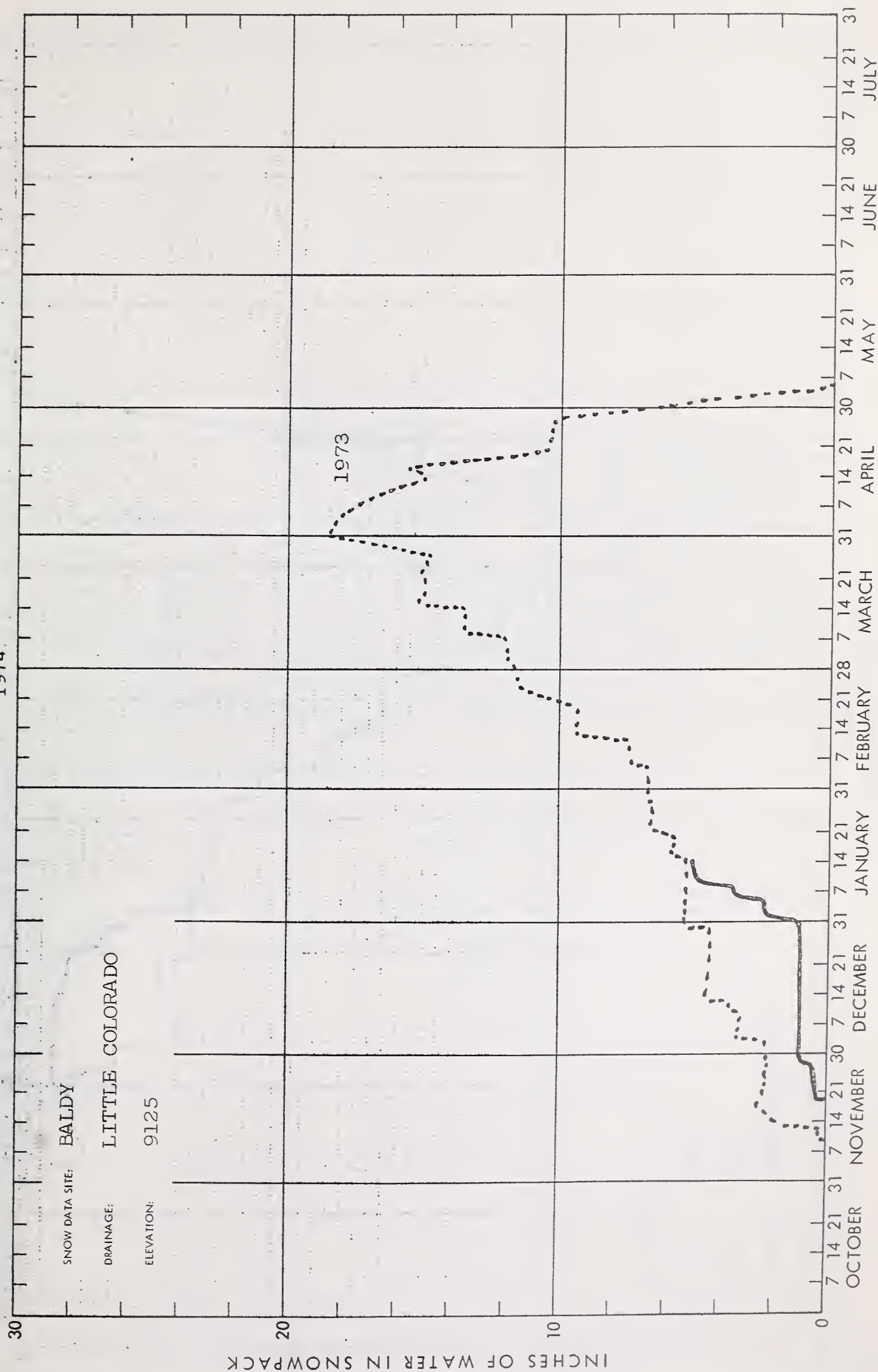
x

SNOW PILLOW DATA  
1974





# SNOW PILLOW DATA 1974



SNOW DATA SITE: BALDY

DRAINAGE: LITTLE COLORADO

ELEVATION: 9125

INCHES OF WATER IN SNOWPACK

OCTOBER

NOVEMBER

DECEMBER

JANUARY

FEBRUARY

MARCH

APRIL

MAY

JUNE

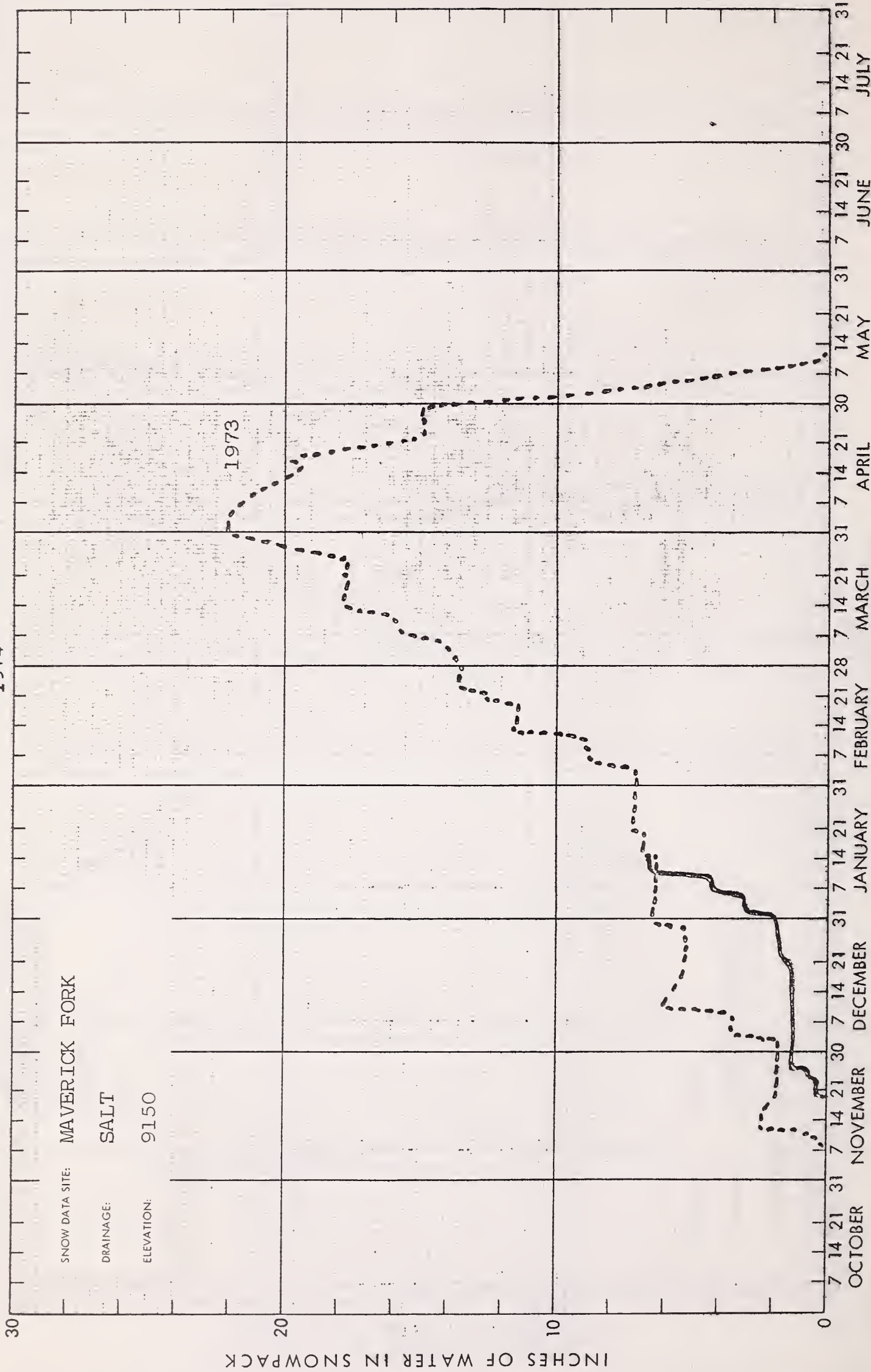
JULY

# SNOW PILLOW DATA 1974

SNOW DATA SITE: MAVERICK FORK

DRAINAGE: SALT

ELEVATION: 9150



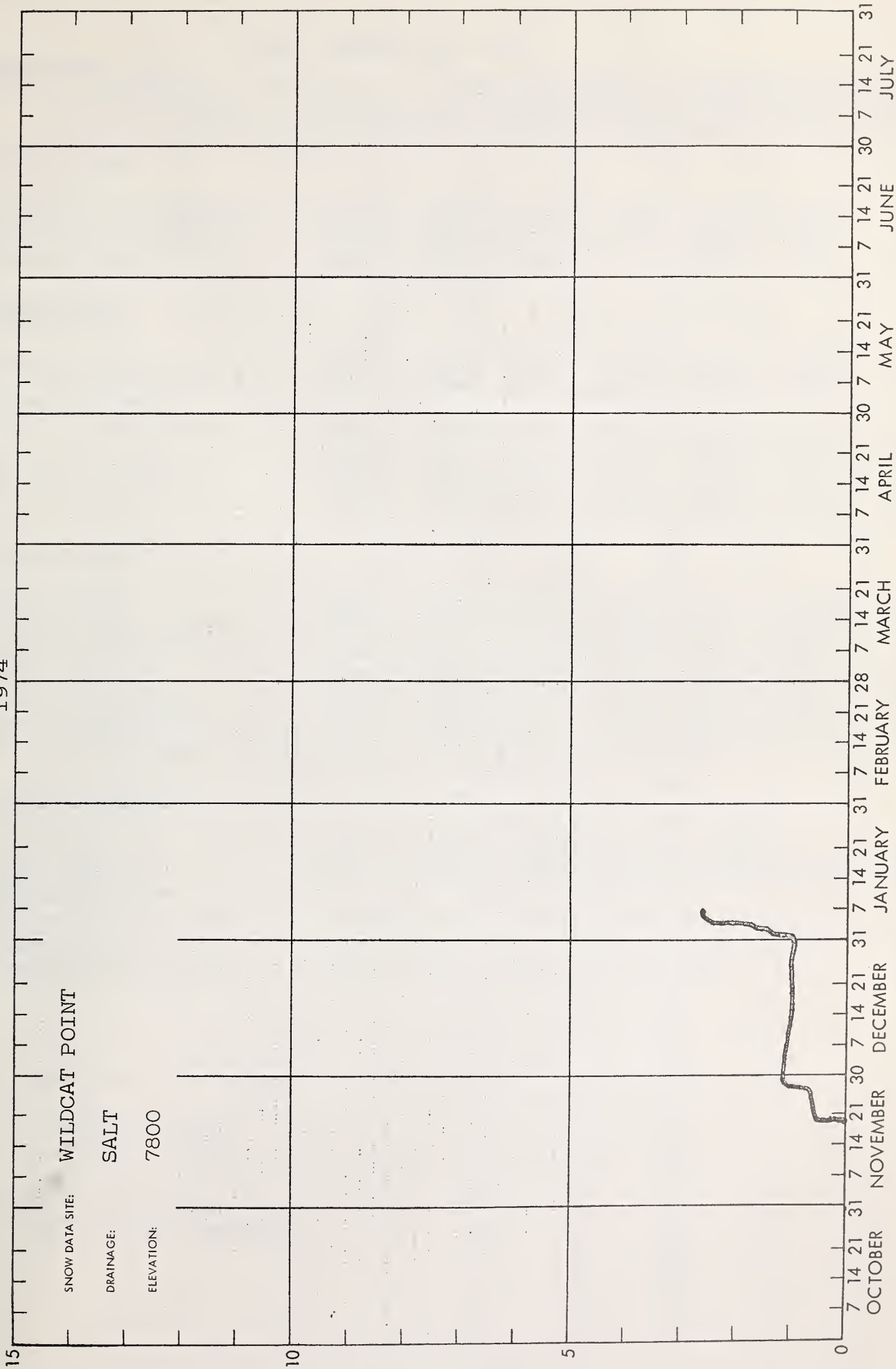
# SNOW PILLOW DATA 1974

SNOW DATA SITE: WILDCAT POINT

DRAINAGE: SALT

ELEVATION: 7800

INCHES OF WATER IN SNOWPACK







ABOUT JANUARY 15, 1974

## PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION			FROM APPROX. NOV. 1 TO DATE		
		Date of Reading	Month's Precipitation	Average †	This Year	Average †	Percent of Average
<u>GILA RIVER</u>							
Silver Creek Divide	9000	1/14	3.00	.83*	5.18	8.82*	59
Hannagan Meadows **	9030	1/14	3.95	1.06	5.95	7.43	80
Frisco Divide **	8000	1/14	1.50	---	2.53	---	---
<u>SALT RIVER</u>							
Canyon Point	7600	1/14	5.92	1.36*	10.27	9.62*	107
Hannagan Meadows **	9030	1/14	3.95	1.06	5.95	7.43	80
Little Wildcat (Heber Snow Course)	7600	1/14	5.09	1.21	8.59	8.12	106
Maverick Fork	9050	1/14	4.41	1.01	7.31	6.93	105
Workman Creek **	6970	1/10	6.68	1.67	9.63	9.79	98
Wilson Lake	9100	1/14	3.27	1.26*	7.00	6.92*	101
<u>VERDE RIVER</u>							
Baker Butte	7300	1/14	6.12	1.51*	9.63	9.58*	101
Copper Basin Divide	6720	1/14	4.22	.75*	6.64	6.03*	110
Fort Valley **	7350	1/14	2.34	.70	4.71	4.72	100
Happy Jack **	7480	1/14	4.23	.95	6.49	5.93	109
Mingus Mountain	7660	1/14	3.55	.70	6.15	4.86	127
Mormon Mountain	7500	1/14	6.00	1.11*	9.20	9.05*	102
White Horse Lake Jct.**	7150	1/14	4.27	---	6.87	---	---
<u>LITTLE COLORADO</u>							
Inner Basin #1	9830	1/14	5.50 <sup>1/</sup>	1.03	8.95 <sup>1/</sup>	9.16	98
Inner Basin #2	10050	1/14	6.00 <sup>1/</sup>	1.24*	10.65 <sup>1/</sup>	10.60*	100
Little Wildcat (Heber Snow Course)	7600	1/14	5.09	1.21	8.59	8.12	106
Sheep Crossing (Baldy Snow Course)	9125	1/11	3.65	1.14	6.52	6.60	99
1/ Partially Estimated							
† 1958-72 Average							
* Adjusted Average							
** Data Supplied by U.S. Forest Service							

- 14 -



PRECIPITATION AT SELECTED ARIZONA STATIONS    1/

STATION	Precipitation (Inches)	
	DECEMBER	PERIOD: NOVEMBER THROUGH DECEMBER
Alpine	.11	.59
Ash Fork	0	0
Clifton	0	.55
Douglas	0	.08
Flagstaff WSO*	.12	2.02
McNary	.26	3.32
Payson Ranger Station	.02	1.82
Phoenix WSFO **	0	1.36
Prescott (City)	.02	1.00
Springerville	T	T
Tucson WSO*	0	.46
Winslow WSO*	.05	.93
Yuma WSO*	0	.05

1/      Data and Analysis furnished by National Weather Service,  
Phoenix, Arizona

WSO \*      Weather Service Office

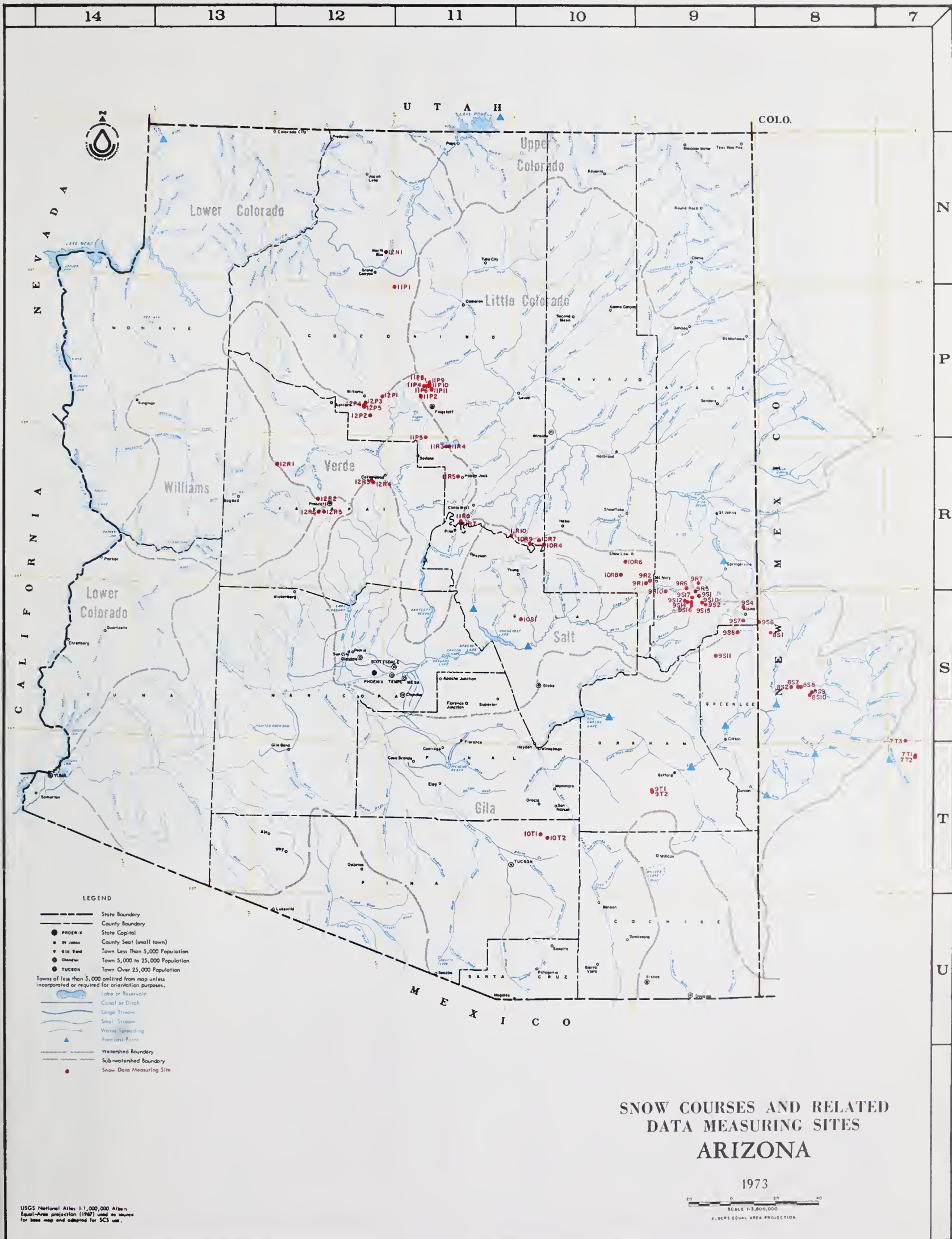
WSFO\*\*    Weather Service Forecast Office

## SOIL MOISTURE

ABOUT JANUARY 15, 1974

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average †
<u>GILA RIVER</u>							
Frisco Divide	8000	48	13.3	1/14 11/1	6.0 5.7	13.8 18.4	9.1 ---
<u>SALT RIVER</u>							
Black River Divide	9100	48	16.8	1/11 10/31	14.1 13.9	17.9 18.4	16.1 ---
Canyon Creek	7500	48	18.3	1/14 10/30	13.7 11.4	17.4 17.9	15.3 ---
Corduoy Creek	6000	36	13.5	1/3 10/30	6.6 5.9	14.6 13.6	8.8 ---
McNary	7200	48	16.3	1/14 10/30	13.6 13.2	17.9 17.5	14.8 ---
<u>VERDE RIVER</u>							
Mormon Mountain	7500	48	16.1	1/14 10/30	13.3 13.2	17.8 17.8	15.0 ---
Newman Park	6750	48	17.7	1/14 10/30	12.5 9.5	19.5 16.4	15.7 ---
† 1958-72 15-year average							







# INDEX to SNOW COURSES and SOIL MOISTURE STATIONS

NUMBER	NAME	SEC.	TWP.	RGE.	ELEV.	DRAINAGE	OBSERVER	RECORD BEGAN
11P10A	Agassiz	32	23N	7E	11200	Little Colorado	SCS-C.F.*	1968
11R7	Baker Butte #2	9	12N	9E	7700	Verde	SCS	1971
11R6PSP	Baker Butte	4	12N	9E	7300	Verde	SCS	1966
9S1APSP	Baldy	28	7N	27E	9125	Little Colorado	SCS	1950
9S15	Baldy #2	12	6N	26E	9750	Little Colorado	SCS	1963
9S16	Baldy #3	13	6N	26E	10950	Little Colorado	SCS	1963
10T1	Bear Wallow	6	12S	16E	8100	Gila	FS	1948
9S6	Beaver Head	13	4N	30E	8000	San Francisco	FS	1938
12P5	Bill Williams Intermediate	17	21N	2E	8550	Cataract	FS	1967
12P4	Bill Williams Summit	17	21N	2E	8950	Verde	FS	1967
9S10m	Black River Divide	10	6N	27E	9400	Salt	SCS	1954
12N1	Bright Angel	34	33N	3E	8400	Bright Angel Creek	NPS	1947
12R1	Camp Wood	3	16N	6W	5700	Verde	FS	1946
10R7M	Canyon Creek #2	18	11N	15E	7500	Little Colorado	SCS	1958
10R9P	Canyon Point	28	11N	14E	7600	Salt	SCS	1967
12P1M	Chalender	27	22N	3E	7100	Verde	FS	1947
9R7	Cheese Springs	28	8N	27E	8600	Little Colorado	SCS	1969
12R6P	Copper Basin Divide	23	13N	3W	6720	Verde	SCS	1963
10R8m	Corduroy Creek	4	8N	21E	6000	Salt	SCS	1954
9S7	Coronado Trail	26	5N	30E	8000	San Francisco	FS	1938
9T2A	Crazy Horse	34	8S	24E	10200	Gila	FS	1963
11P11a	Doyle Saddle	4	22N	7E	10900	Little Colorado	SCS	1968
7T1	Emory Pass #1	16	16S	9W**	7800	Mimbres	SCS	1967
7T2	Emory Pass #2	16	16S	9W**	7800	Mimbres	SCS	1967
10R6	Forest Dale	2	9N	21E	6430	Salt	BIA	1939
9R5	Ft. Apache	18	7N	27E	9160	Little Colorado	SCS	1951
11P2P	Ft. Valley	22	22N	6E	7350	Little Colorado	FS	1947
8S1MP	Frisco Divide	31	6S	20W**	8000	San Francisco	FS	1938
12R4	Gaddes Canyon	11	15N	2E	7600	Verde	SCS	1954
11P1	Grand Canyon	21	30N	4E	7500	Hance Creek	NPS	1947
9S11P	Hannagan Meadows	19	3N	29E	9090	San Francisco	FS	1964
11R5P	Happy Jack	30	16N	9E	7630	Verde	FS	1951
9R10	Hawley Lake	13	7N	24E	8300	Salt	BIA	1966
10R4PSP	Heber	28	11N	15E	7600	Little Colorado	SCS	1950
9T1A	High Peak	34	8S	24E	10500	Gila	FS	1963
8S9A	Hummingbird	19	11S	17W**	10550	Gila	SCS	1964
11P9P	Inner Basin #1	28	23N	7E	10000	Little Colorado	C.F.*	1967
11P8P	Inner Basin #2	28	23N	7E	9750	Little Colorado	C.F.*	1967
12R2	Iron Springs	22	14N	3W	6200	Bill Williams	SCS	1946
9S2APSP	Maverick Fork	13	6N	27E	9150	Salt	SCS	1950
7S3A	McKnight Cabin	10	15S	10W**	9300	Mimbres	SCS	1967
9R2M	McNary	23	8N	23E	7200	Salt	BIA	1939
9R1	Milk Ranch	33	8N	23E	7000	Salt	BIA	1941
12R3	Mingus Mountain	3	15N	2E	7100	Verde	SCS	1947
8S2	Mogollon	2	11S	19W**	7000	San Francisco	SCS	1953
11R4	Mormon Lake	13	18N	8E	7350	Little Colorado	SCS	1947
11R3MAPSP	Mormon Mountain	14	18N	8E	7500	Verde	SCS	1950
9S12A	Mt. Ord	4	6N	26E	11200	Salt	SRP-SCS	1966
11P5M	Newman Park	25	19N	6E	6750	Verde	SCS	1963
9S4	Nutriso	23	6N	30E	8500	San Francisco	FS	1938
11R10	Promontory Butte	5	11N	13E	7930	Little Colorado	SCS	1973
8S7	Redstone Trail	5	11S	18W**	8600	San Francisco	SCS	1961
10T2	Rose Canyon	15	12S	16E	7300	Gila	FS	1948
8S8P	Silver Creek Divide	4	11S	18W**	9000	San Francisco	SCS	1964
9S14A	Smith Cienega	10	6N	26E	10050	Salt	SRP-SCS	1966
11P4	Snow Bowl #1	36	23N	6E	10260	Verde	FS	1961
11P6	Snow Bowl #2	31	23N	7E	11000	Verde	FS	1965
9S8	State Line	6	6S	21W**	8000	San Francisco	FS	1938
9S17	Sunrise Summit	36	7N	26E	10600	Salt	SCS	1972
12P2P	White Horse Lake Jct.	2	20N	2E	7180	Verde	FS	1967
12R5	White Spar	19	13N	2W	6000	Verde	SCS	1963
8S10A	Whitewater	19	11S	17W**	10750	Gila	SCS	1964
12P3	Williams Ski Run	9	21N	2E	7720	Cataract	FS	1967
9R6P	Wilson Lake	4	7N	26E	9000	Salt	SCS	1966
10S1P	Workman Creek	33	6N	14E	6900	Salt	FS	1952

A Aerial Snow Depth Marker

M Soil Moisture Station

P Precipitation Storage Gage

\*\* NM Principal Meridian

a Aerial Snow Depth Marker Only

m Soil Moisture Station Only

SP Snow Pressure Pillow.

\* City of Flagstaff



## The Following Organizations Cooperate in the Arizona Snow Survey Work

### FEDERAL

- Department of Agriculture
  - Soil Conservation Service
  - Forest Service
    - Apache Forest
    - Coconino Forest
    - Coronado Forest
    - Gila Forest
    - Kaibab Forest
    - Prescott Forest
    - Rocky Mountain Forest and Range Experiment Station
    - Tonto Forest
- Department of Commerce
  - NOAA, National Weather Service
- Department of Interior
  - Bureau of Reclamation
    - Region III
  - Geological Survey
    - Arizona District
    - New Mexico District
  - Bureau of Indian Affairs
    - Fort Apache Reservation
    - San Carlos Irrigation Project
  - National Park Service
    - Grand Canyon National Park
- Gila Water Commissioner
  - Safford, Arizona

### STATE

- Arizona Game and Fish Department
- Arizona State Parks Board
- University of Arizona
  - Arizona Agricultural Experiment Station
  - Water Resource Research Center
  - Department of Watershed Management

### MUNICIPAL

- City of Flagstaff

### IRRIGATION PROJECTS

- Salt River Valley Water User's Association
  - Phoenix, Arizona
- San Carlos Irrigation and Drainage District
  - Coolidge, Arizona
- Maricopa County Municipal Water Conservation District

### PRIVATE

- Southwest Forest Industries, Inc.
  - McNary, Arizona
- Fort Apache Indian Reservation
  - White Mountain Recreation Enterprises

Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
ROOM 6029 FEDERAL BUILDING  
PHOENIX, ARIZONA 85025

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID  
U. S. DEPARTMENT OF  
AGRICULTURE  
AGR-101



FIRST CLASS MAIL

FEDERAL - STATE - PRIVATE  
**COOPERATIVE SNOW SURVEYS**

Furnishes the basic data  
necessary for forecasting  
water supply for irrigation,  
domestic and municipal water  
supply, hydro-electric power  
generation, navigation,  
mining and industry

*"The Conservation of Water begins  
with the Snow Survey"*